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EXAMINER

SAUCIER, SANDRA E

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 12/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/225,426

Applicant(s)
Rosazza et al.

Examiner
Sandra Saucier

Art Unit
1651



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Sep 25, 2002

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1, 3, 5, 6, 9-11, 13, 15, and 16 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1, 3, 5, 6, 9-11, 13, 15, and 16 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s): _____
- ☐ Interview Summary (PTO-413) Paper No(s): _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Claims 1, 3, 5, 6, 9-11, 13, 15, and 16 are pending and under examination.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The claims are examined to the extent that they read on peptides as elected in paper # 9. As art has been applied on the elected embodiment "peptides", search and art for other embodiments, such as L-arginine or polyarginine has not been applied since they are clearly not peptides. See MPEP 809.02 for examination with regard to election of species.

Claim Rejections - 35 USC § 112

INDEFINITE

Claims 1, 5, 6, 9-11 and 15 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The specification has differing meanings for the term "peptide". On page 9, it reads "peptide is arbitrarily defined as a peptide chain having a single peptide bond", that is a dipeptide or having only two amino acids. However, on pages 15 and 16, Table 1 and other places, peptide is used in its usual sense to mean a few amino acids linked with peptide bonds, such that bradykinin or a five amino acid sequence is called a peptide. The use of the term "peptide" is contradictory throughout the specification and the claims which leads to confusion as to the scope of the claims. Under one usage, no peptides are present in the independent claims, under another usage BK and its derivatives are peptides. Both contradictory usages appear to be supported by the specification. Applicant has still not clarified this issue. The issue would be moot if applicant canceled the claims directed only to "peptide" such as claim 1. Claim 3, which has specific peptides, is definite since the peptides are defined.

The term "peptide" is not usually restricted to mean a dipeptide. Thus, the term "peptide" due to confusion in the specification, has been interpreted to have its usual meaning, that is a few amino acids linked by peptide bonds, in the interest of compact prosecution. Thus, BK and the compounds identified by SEQ ID numbers have been considered to be peptides for prosecution.

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Response to Arguments

Applicants appear to argue that the term "peptide", which is defined to mean two different types of compounds in the specification, is not indefinite because one of skill in the art would realize what peptide means. It is the examiner's position that one of skill in the art, reading the dueling definitions for the term peptide in the specification, and then reading claim 1 in light of the specification would not be able to discern if the claim meant the term to be restricted to a dipeptide or if the term was meant to encompass more than two amino acids linked by a peptide bond. Thus, the scope of the claims is uncertain.

Claim Rejections – 35 USC § 102

Claims 1, 5, 6, 10, 11, 15 and 16 remain rejected under 35 U.S.C. 102(b) as being clearly anticipated by Groves *et al.* [V].

The claims are directed to a one step method of intravenously administering from 20–500 µg/kg of a peptide, oligopeptide or protein or L-arginine, containing an arginine available to NOS, to a mammal in order to regulate NO production for the prevention or treatment of certain NO mediated pathogenic conditions.

(The claims are examined to the extent that they read on peptides.)

Groves *et al.* disclose the one-step method of the intravenous administration of a regulator of NO production, HOE-140, a bradykinin B2 receptor antagonist to a human. This reference fulfills the one step method of administering a NO-regulating amount of an peptide. Bradykinin, an arginine containing peptide, stimulates the production of NO and vasodilation, while the peptide, HOE-140, which is a known bradykinin antagonist which contains arginine, limits NO production. The dosage is 200µg/min for 15mins. If one assumes that the average weight of a patient is 180 lbs, this is a dosage of about 36µg/kg, which is well within applicants' claimed range. Please note that the claim does not require that the mammalian subject suffer from any disease, but merely the compound be administered to a healthy subject with the intent of preventing a pathogenic condition. Please note that intent is of little patentable weight when the subject, compound to be administered, mode of administration, dosage of the reference are the same as those of the claimed method. The result of practice of the same method would reasonably be expected to be the same, whether or not the reference fully appreciates the result.

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Response to Arguments

Applicants argue that Groves *et al.* teach that the administration of HOE-140 has no effect on NO on page 3429 of the reference. The reference states that "The fact that HOE-140 had no influence on NO synthase activity in cultured endothelial cells implies that its effects (*in vivo*) were not attributable to A NONSPECIFIC INHIBITION of enzymatic NO formation." Parenthetical insertion is mine. However, the effect of HOE-140 *in vivo* may have been as SPECIFIC inhibitor of NO formation. Please see page 3429, first paragraph where it is stated, "The vasodilatory actions of bradykinin are mediated largely through the stimulated release of NO,...and it is therefore likely that the actions of HOE 140 were to reduce the endogenous bradykinin stimulated release of one or more of these endothelium derived vasodilators. In other words, the authors think that it is likely that HOE 140 is a bradykinin antagonist, which antagonists are suggested in the specification as NO synthetase modulators.

Applicants continue to argue that their method requires the stimulation or inhibition of NO synthetase. However, their method is a one step method of administering to a mammal for prevention or treatment of certain nitric oxide-mediated pathogenic conditions. Applicants appear to argue that the administration of HOE 140, a known bradykinin B₂ receptor agonist, does not modulate NO synthetase. The reference only states that NO synthetase is not modulated in cultured endothelial cells, not in an intact mammal as the present claims are directed.

In any case, the one step method of the claims is the same as the one step method of administering taught by the reference. The subject of the reference is the same as the subject of the claims, and all mammals are in need of prevention of disease. The dosage of the reference falls within the range of the dosage of the claims. The compound of the reference, HOE-140, is a peptide which contains at least one arginine at a terminus of the peptide. Thus, it is reasonable to conclude that the result of treating the same patient with a compound which falls within the definition of the claims and in within the same dosage of the claims would have the same effect as claimed.

Applicants continue to argue that if the reference does not directly teach their explicit effect as a consequence of their one step method of administering, it is not anticipatory. This is not correct because the effect is a direct

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consequence and flows from the step of administering and is therefore, inherent in the practice of the method of the reference.

"To invalidate a patent by anticipation, a prior art reference normally needs to disclose each and every limitation of the claim. See *Standard Havens Prods., Inc. v. Gencor Indus., Inc.*, 953 F.2d 1360, 1369, 21 USPQ2d 1321, 1328 (Fed. Cir. 1991). However, a prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it. See *id.*; *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 630, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates. See *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. See *Titanium Metals*, 778 F.2d at 780. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art. See *id.* at 782. However, the discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art's functioning, does not render the old composition patentably new to the discoverer. See *id.* at 782 ("Congress has not seen fit to permit the patenting of an old [composition], known to others . . . , by one who has discovered its . . . useful properties."); *Verdegaal Bros.*, 814 F.2d at 633.

This court's decision in *Titanium Metals* illustrates these principles. See *Titanium Metals*, 778 F.2d at 775. In *Titanium Metals*, the patent applicants sought a patent for a titanium alloy containing various ranges of nickel, molybdenum, iron, and titanium. The claims also required that the alloy be "characterized by good corrosion resistance in hot brine environments." *Titanium Metals*, 778 F.2d at 776. A prior art reference disclosed a titanium alloy falling within the claimed ranges, but did not disclose any corrosion-resistant properties. This court affirmed a decision of the PTO Board of Appeals finding the claimed invention unpatentable as anticipated. This court concluded that the claimed alloy was not novel, noting that "it is immaterial, on the issue of their novelty, what inherent properties the alloys have or whether these applicants discovered certain inherent properties." *Id.* at 782. This same reasoning holds true when it is not a property, but an ingredient, which is inherently contained in the prior art. The public remains free to make, use, or sell prior art compositions or processes, regardless of whether or not they understand their

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complete makeup or the underlying scientific principles which allow them to operate. The doctrine of anticipation by inherency, among other doctrines, enforces that basic principle." See *Atlas Powder Co. v. IRECO Inc.* 51 USPQ2d 1943 (Fed. Cir. 1999).

See also, *Ex parte Novitski*, 26 USPQ2d 1389 (Bd. Pat. App. & Inter. 1993) The board rejected a claim directed to a method for protecting a plant from plant pathogenic nematodes by inoculating the plant with a nematode inhibiting strain of *P. cepacia*. A US patent to Dart disclosed inoculation using *P. cepacia* bacteria for protecting the plant from fungal disease. Dart was silent with regard to nematode inhibition, but the Board concluded that nematode inhibition was an inherent property of the bacteria, and therefore of the method as disclosed by Dart.

Thus, a reference may be anticipatory if it discloses every limitation of the claimed invention either explicitly or inherently. A reference includes an inherent characteristic if that characteristic is the "natural result" flowing from the reference's explicitly explicated limitations. *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1269, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

In the instant case, the effect on NO synthetase flows from the administration of a known antagonist. Thus applicants are incorrect in arguing that the anticipatory rejection is improper.

Response to Further Arguments

Applicants argue *In re Marshall* 198 USPQ 344, demonstrates that a new use for an old compound is patentable. This certainly is true and if applicants would distinguish their one step method of administration from the prior art in a manner besides arguing intent, applicant might have a patentable method claim.

Because, in the instant case, only the intent is different when administering the SAME COMPOUND to the SAME SUBJECT in the SAME QUANTITIES and with the SAME MODE of administration and the SAME TIMING of the administration as a process disclosed in the prior art, the same results, would reasonably be expected to flow from the same process of administering.

In *In re Marshall*, the subject in the prior art reference of the PDR is a subject suffering from esophagitis, gastritis, peptic ulcer or irritable colon

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syndrome. This is not the same subject as the subject or the implied subject of the claim under review in the case. Therefore, the anticipatory rejection was properly reversed, and the analysis of this claim is not analogous to the instant claim.

Claims 1, 5, 9-11 and 15 remain rejected under 35 U.S.C. 102(b) as being anticipated by Thiernermann *et al.* [U].

The claims are directed to a one step method of intravenously administering from 20-500 µg/kg of a peptide, oligopeptide or protein, containing an arginine available to NOS, to a mammal in order to regulate NO production in order to treat or prevent certain pathogenic conditions.

Thiernermann *et al.* disclose administration of 1-30mg/kg of NO₂-Arg-L-arginine and other dipeptides containing arginine, in vivo, to rats raises blood pressure (vasoconstrictors). This is the same one step method as claimed.

Response to Arguments

Applicants argue that at the time of applicants' invention one of skill in the art would not have realized from the teachings of Thiernermann *et al.* that the administration of the dipeptides of Thiernermann *et al.* would result in stimulating or inhibiting NO production.

A reference may be anticipatory if it discloses every limitation of the claimed invention either explicitly or inherently. A reference includes an inherent characteristic if that characteristic is the "natural result" flowing from the reference's explicitly explicated limitations. Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1269, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates. See *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. See *Titanium Metals*, 778 F.2d at 780. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art. See *id.* at 782.

In the instant case, the effect on NO synthetase flows from the administration of a known antagonist. Thus applicants are incorrect in arguing

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that the anticipatory rejection is improper.

Response to Further Arguments

The reference of Thiermermann et al. discloses the blood pressure of the animal rises as a consequence of the administration of the dipeptides. It is now well appreciated that vasorelaxation/vasoconstriction is mediated by NO concentration. Because Thiermermann et al. at the time of publication, did not understand the exact mechanism through which the administered compounds functioned, does not mean that the claimed method is patentable. Further, the claimed method is a method of stimulating or inhibiting NO synthase, which could either raise or lower blood pressure and also have other effects which are mediated by NO concentration.

It is not relevant to the analysis of the claimed method that the reference makes no mention of (inhibiting, preventing etc.). Discovery of a new benefit for an old process does not render the old process patentable. In re Woodruff, 919 F. 2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). Merely because the reference did not have one of applicant's purposes in mind when the (drug was administered) does not alter the drug's physiological activity. In the context of an anticipation rejection, the Federal Circuit stated, "Where, as here, the result is a necessary consequence of what was deliberately intended, it is of no import that the article's authors did not appreciate the results." Mehl/Biophile Int'l Corp. v. Milgraum, 192 F. 3d 1362, 1366, 52 USPQ2d 1303, 1307 (Fed. Cir. 1999). While discovery of the biological mechanism behind the administration of a known bioactive compound is clearly publishable in a peer-review journal, the criteria for patenting claims are distinct from publication criteria. For example, if the active step of the method is the same and the subject is the same, then the claimed method can be anticipated or made obvious by the prior art, even if the prior art does not recognize or appreciate this mechanism as long as the compound administered, dosage, mode of administration, subject, etc. are the same as in the method disclosed in the prior art.

If this were not so, one patent might issue with a one step claim of administering the a compound to a subject in order to empirically treat a specific disease which is result of a contemporaneously unknown, disordered mechanism or pathway; and, then upon later discovery of the mechanism of the disorder, another patent could issue with a one step claim directed to the administration of the same compound to the same subject in order to modulate

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the specifically disordered mechanism or pathway. This would lead to multiple patents with essentially the same invention being patented, merely being couched in different words.

The applicant argues that the reference teaches away from the presently claimed invention, but fails to explain how that it teaches away. The presently claimed invention does not require that L-arginine be co-infused as applicant appears to argue. This argument is not understood and is, therefore, not persuasive.

Claims 1, 3, 5, 6, 9-11, 15 and 16 remain rejected under 35 U.S.C. 102(b) as being anticipated by US 4,585,757 [A].

The claims have been discussed above.

US 4,585,757 discloses the administration of arginine containing peptides, CIP fragment, contraceptive tetrapeptide and bradykinin in the range of 50-500 µg/kg to lower blood pressure (Table 2 and 3).

Response to Arguments

Applicants continue to argue that one of skill in the art would not appreciate the effects of the administration of the arginine-containing peptides of '757. The rebuttal of this argument concerning the knowledge of one of skill in the art is above and is not repeated.

Applicants argue that the reference does not demonstrate the administration of any of the peptides of claim 16. This is incorrect. See the reference at Table 2.

Response to Further Arguments

Applicants argue that '757 does not teach administration of the compounds to "alleviate as substrates to or inhibit NO synthase to treat or prevent NO mediated pathogenic conditions". While for the sake of argument, it may be said that no prevention of NO mediated pathogenic conditions is taught in the reference, all subjects are in need of prevention of the development of pathogenic conditions. Further, it was recognized as far back as 1992, see Nathan (BL), applicants' IDS that NO mediates blood pressure. If a compound is administered in the prior art that regulates blood pressure, even though it is not

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recognized at the time, that it may regulate through NO concentration changes by modulating NO synthase activity, the result appears to be the same result that would be obtained from applicants' instant administration of the same compound. A treatment to regulate blood pressure could be considered to be a treatment of a NO mediated pathogenic condition.

Applicants argue that the reference is non-enabling because most of the amino acid sequences do not have an accessible arginine moiety available (to the synthase). However, applicants' own particularly claim specific amino acid sequence, bradykinin is clearly administered. Does applicant argue that administration of bradykinin does not work? If so, applicants are arguing that their own claimed invention is nonenabling.

Claims 1, 3, 5, 6, 9-11, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,143,719 [A].

The claims have been discussed above.

US 6,143,719 discloses the intravenous administration in rabbits of Seq ID # 19 which is the same sequence as applicants' Seq. Id. # 5 in example III, col. 19-20. Although the reference is silent with regard to the effect of the peptide on NO synthase, as the recipient, compound administered, mode of administration and amounts are the same, the result would inherently be the same as the claimed result.

Applicants repeat arguments concerning anticipation. Applicants also argue that no one has been cured of certain NO mediated diseases using the method of '719. Please note that the claims do not require "cure" only prevention or treatment. Further, applicant has NOT DEMONSTRATED the CURE or ALLEVIATION OF SYMPTOMS or PREVENTION of ALZHEIMER'S or PARKINSON'S or DIABETES or ANY CONDITION WHATSOEVER by administering the claim specific compounds. Such a demonstration would be EXCEEDINGLY PERSUASIVE and is encouraged.

Applicants argue that the amount to be administered as taught by '719 is 3 grams per day/70 kg which when divided is the same as 4.3×10^{-8} micrograms/day/kg, which applicants state is a minuscule amount. While applicants are correct in stating that their calculated amount is below the amount

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required by the claim, this calculation is IN ERROR. Please demonstrate how applicants calculated this concentration. Since the calculation is in error, the argument is unpersuasive. Further, applicants' claim has no time limit associated with it, such as per day, per hour, per 15 minutes, per year, which leaves it open to multiple interpretations and application of prior art.

Claim Rejections – 35 USC § 103

Claims 1, 3, 5, 6, 9–11, 13, 15, and 16 remain rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,152,425 [B].

The claims have been discussed above.

US 4,152,425 discloses the infusion of 10–3000µg of kinin/l solution. The specifically preferred kinin is bradykinin. The infusion amount is exemplified at one liter (col. 5, l. 18).

The use of up to 3000µg/l/80kg = 37.5µg bradykinin/kg in the method of US '425 would have been obvious because this is within the range of administration of bradykinin taught in the reference.

Response to Arguments

Applicants argue that the method of '425 teaches an infusion solution containing phenothiazine which is toxic when used over long periods of time. Applicants argue that one of skill in the art, when treating Parkinson's disease with the claim specific peptides would not co-administer phenothiazine because phenothiazine administered over a long period of time would itself cause Parkinson's disease. While this may be true, please note that the CLAIMED METHOD has *no time period* associated with it, and it is open to the addition of ANY OTHER compounds to the administered claim specific compounds and further, is not restricted to the treatment of Parkinson's disease. The claimed method may be interpreted to be the administration of a single dosage of the claim specific peptides. Careful attention to the CLAIM LANGUAGE might advance prosecution.

Applicants argue that when using L-arginine as a substrate or as the compound administered, the co-administration of a phenothiazine would compete against the substrate for NOS-II. Please note that arginine is not a peptide and is not under examination at this time. Thus, this argument is not

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relevant to the claim limitations under examination and is therefore, unpersuasive.

Claims 1, 5, 6, 9-11, 15 and 16 remain rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,648,333 [C].

US 5,648,333 discloses the administration of the various peptides which are bradykinin antagonists in the range of 10µg-10mg/kg (Col. 18, l. 25 and Table 1).

Although the references are silent with regard to the effects of the administration of bradykinin or arginine containing peptides on NO production, it is reasonable to assume that the effects would be the same as claimed because, the patient is the same, the compounds administered are the same, the dosage is the same, the mode of administration is the same; therefore, the results would inherently be the same.

Response to Arguments

Applicants argue that their claims are patentable because they allege that others have been granted multiple patents for the same one step administration of a drug. First, as counsel well knows, the examiner cannot comment on issued patents and each case is examined on its own merits. Applicants would better further their case by amending the claims to avoid the prior art by either distinguishing the recipient of the peptides from the prior art recipients, distinguishing the compounds to be administered (for example, canceling the limitations directed to BK, BK fragment 1-5 and the non-examined poly-arginine or L-arginine) or distinguishing the concentration or modes of administration of the compounds from the prior art disclosures; applicant has done none of the above. Thus, the rejections remain.

Response to Further Arguments

Applicants argue that it would not be reasonable to assume that the administration of the various peptides which are bradykinin antagonists in the range of 10micrograms to 10mg/kg would produce the same results as the claimed invention without knowing the effects of bradykinin on NO production. This argument is unpersuasive because, inherency does not require theoretical knowledge of biological mechanisms, merely that the SUBJECT, COMPOUND, MODE OF ADMINISTRATION and AMOUNT ADMINISTERED be the same. The

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result of using the same method would reasonably be assumed to flow from the practice of the same method and BE THE SAME. Applicants continue to argue intent instead of amending the claim language to avoid the prior art.

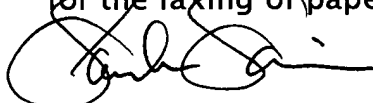
Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1651. The supervisor for 1651 is M. Wityshyn, (703) 308-4743. The normal work schedule for Examiner Saucier is 8:30AM to 5:00PM Monday and Tuesday and 8:30AM to noon on Wednesday.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra Saucier whose telephone number is (703) 308-1084. Status inquiries must be directed to the Customer Service Desk at (703) 308-0197 or (703)-308-0198. The number of the Fax Center for the faxing of papers is (703) 308-2742 or (703) 305-3592.



Sandra Saucier
Primary Examiner
Art Unit 1651
December 16, 2002